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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/678,977

10/03/2003

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EXAMINER

FAROUL, FARAH

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

05/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

82

Office Action Summary	Application No. 10/678,977	Applicant(s) SIVASANKARAN ET AL.	
	Examiner Farah Faroul	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/20/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following Office Action is based on the application filed on October 3, 2003 having claims 1-16 and Figures 1-3, claiming priority from provisional application filed October 15, 2002.

Drawings

2. The drawings are objected to because Figures 1A and 1B lack descriptive legends for the acronym: STP. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

3. The abstract of the disclosure is objected to because of the following informalities:

The acronym MAC in line 3 of the abstract should be changed to "Medium Access Control (MAC)". Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities:

In page 2, line 10, it is suggested that applicant remove "es" after the word "re-establish".

In page 3, line 3 and line 13, it is suggested that applicant delete the word "of" between the words "diagram" and "depicting".

In page 3, line 23, the word "that" should be added in lieu of the word "the".

Appropriate correction is required.

Claim Objections

5. Claims 1, 10-12 and 14-16 are objected to because of the following informalities:

In Claims 1, 10-11 and 15, the acronym MAC should be changed to "Medium Access Control (MAC)".

In claims 10, 12, 14 and 16, the phrase "configured to" should be deleted to make the claims positive.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the address table" in line 1. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the MAC address table" as recited in claim 1.

Claim 5 recites the limitation "the address table" in line 1. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the MAC address table" as recited in claim 1.

Claim 6 recites the limitation "the address table" in line 1. There is insufficient antecedent basis for this limitation in the claim. The limitation should be changed to "the MAC address table" as recited in claim 1.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Note: The phrase "link-loss-learn protocol" recited in claims 10, 12, 14 and 16, has been disclosed by applicant to define "upon detecting a link failure at the port of the switch, the MAC address table has been cleared". It is suggested that applicant clearly recite the definition in the claims, each time the phrase is recited, as the phrase is not known in the art.

Claims 1-4, 7 and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Bare (US 2003/0016624 A1).

For claims 1, 10-11 and 14-15, Bare discloses detecting a link failure at a port of the switch (paragraph 30, lines 1-11 wherein a link failure is detected at a port of the switch); and

Clearing a MAC address table of the switch in response to the link failure detection (paragraphs 32-34 wherein the MAC address table is cleared in response to the link failure)

For claim 2, Bare discloses the address table causes discovery process to fill the table to begin immediately (paragraph 377, lines 1-10 wherein a discovery process to fill the table is disclosed)

For claims 3, 12 and 16, Bare discloses momentarily dropping a link on another port of the switch (paragraph 359, lines 1-15 where the link is dropped on another port of the switch)

For claim 4, Bare discloses momentarily dropping the link on the other port causes propagation of the link failure to next switch (paragraph 379, lines 1-11 wherein the link failure is propagated)

For claim 7, Bare discloses momentarily dropping the link for a length of time sufficient for a next switch to detect the link drop (paragraph 205, lines 1-16 and table 5 wherein the link is dropped for a period of time)

For claims 13 and 14, Bare discloses a multi-port Ethernet switch (paragraph 124, lines 1-7 wherein is disclosed a multi-port Ethernet switch)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2616

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8-9 are rejected under 35 U.S.C. 102(a) as being unpatentable over Bare (US 2003/0016624 A1).

Bare discloses the entire claimed invention except for the length of time is no more than fifty milliseconds and under ten milliseconds.

Thus, it would have been obvious to someone of ordinary skill in the art to add the values 50 ms and 10 ms to the time periods of Bare at the time of the invention. The values are added to the length of time of Bare by modifying the time period to detect a link failure. The motivation to substitute these values into the communication of Bare is that it provides an efficient method of fault recovery.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bare (US 2003/0016624 A1) in view of Eisen et al. (US 2002/0129226 A1).

For claim 5, Bare discloses overwriting each entry in the table (event 12 in figure 7 wherein an entry in the table is overwritten)

For claim 5, Bare discloses the entire claimed invention except overwriting with a template register.

Eisen, from the same or similar field of endeavor, teaches overwriting with a template register (paragraph 45, lines 1-20).

Thus, it would have been obvious to someone of ordinary skill in the art to combine the overwriting method of Eisen with the communication network of Bare at the time of the invention. The overwriting method of Eisen is implemented into the communication network of Bare by using a register to overwrite the entry in the table. The motivation to combine the overwriting method of Eisen with the communication network of Bare is that it provides an efficient fault recovery mechanism.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bare (US 2003/0016624 A1) in view of Tanoue (US 2003/0002462 A1).

For claim 6, Bare discloses the entire claimed invention except momentarily turning off power within the switch.

Tanoue, from the same or similar field of endeavor, teaches turning off a power within a device (paragraph 9, lines 12-32).

Thus, it would have been obvious to someone of ordinary skill in the art to add the turn off the power of the switch of Bare at the time of the invention. The turn-off power feature as taught by Tanoue is implemented into the switch of Bare. The motivation to combine the turn-off power method of Tanoue into the communication network of Bare is that it provides an efficient fault recovery mechanism.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Battou et al. (US 2003/0163555 A1) and Donoghue et al. (US 2003/0117944 A1) are cited to show systems pertinent to applicant's invention.

Donoghue discloses a cascade control system for network units. Battou discloses a hierarchical and distributed control architecture for managing an optical communications network.

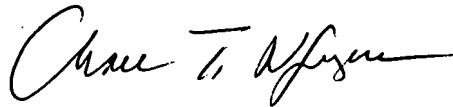
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farah Faroul whose telephone number is 571-270-1421. The examiner can normally be reached on Monday - Friday 6:30 AM - 4 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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